

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Richmond Division
GOLDEN BETHUNE-HILL, *et al.*,
Plaintiffs,
v. Civil Action No. 3:14-cv-852
VIRGINIA STATE BOARD OF
ELECTIONS, *et al.*,

TIME SHEET and OUT-OF-POCKET EXPENSES for Jonathan CERVAS, research assistant to the Bernard Grofman, Special Master

						CERVAS, Jonathan, TIME SHEET as Reseach Assistant to Bernard Grofman in Golden Bethune- Hill, 2018- 19-- working under his instructions
Date	Start Time	End Time	Hours	Total Hours	417.75	
20- Oct	1100a	4p	5	Download shapefiles from VA redistricting site, get shapefiles and other geographic files from US Census , prepare data for redistricting		
21- Oct	10a	5p	7	Create a template from the current district configurations, including identifying the 11 unconstitutional districts and those directly adjacent to them		
22- Oct	12p	7p	7	Create Plan Preliminary 1 which seeks to minimize number of county splits and keep all census places whole, where applicable		
23- Oct	11:00a	1230p	1.5	Continue work on Preliminary Plan 1, including equalizing populations and minimizing splits		
	350p	730p	3.6	Counting current splits in 2011 plan, p ercentages of districts in each county		
	900p	12a	3	Continue calculating which counties are predominant in which districts		
24- Oct	1015a	130p	3.25	Making corrections to data from responses from Grofman		
	215p	7:15p	5	Start working on "minimal changes" plan		
	930p	1220a	2.9	Shifting population in the Norfolk/Chesapeake area to minimize deviations to less than 1%		
25- Oct	1000a	5:50p	8	Minimal changes plan, work on districts 91-95		
26- Oct	1030	600p	7.5	Download District maps, clean up data, start creating county split data		
27- Oct	11:30	700p	7.5	Constructed districts 63, 62 and 66 in minimal plan		

28-				
Oct	1230p	645p	7	Work on plan comparison files so that we have a record of all plans submitted to the court that can be easily compared on multiple criterias.
29-				
Oct	11:15a	7p	7.75	Talk to Grofman to coordinate plans with Smith, calculate compactness of districts in tidewater area, continue to adjust populations in Newport News Hampton.
30-				
Oct	10:15a	6p	7.75	Disaggregated information about VAP by county and district.construct districts 27,68,73,72 of preliminary1a, talk to Grofman
31-				
Oct	1p	10:15p		ibid
1-				
Nov	12:30p	2p	1.5	Talked to Grofman about what needs to be done, especially as it pertains to visualizing maps.
	4p	6p	2	Downloaded new data received via carrier from VA and began the process of importing and interpreting data.
	1030p	12:30	2	Spent time developing a visualization so all submitted maps can be presented in the same way, so features of the plan can be interpretable.
2-				
Nov	11a	3p	4	Finished JC_Prelim_1 and began work on writing up report
3-				
Nov	12a	130p	1.5	Found "fracked" parts of unconstitutional districts and wrote it up for Grofman
	6:30p	8p	1.5	Import Current plan into Tableau for interactive viewing of features for Grofman to get a better sense of the geography
4-				
Nov	9:30a	1130	2	continue building Tableau file for possible distribution and comparison of plans.
	5p	730	2.5	ibid
5-				
Nov	11a	12p	1	Import Democratic plan
	9p	1130	2.5	Attempting to figure out why there are discrepancies between shapefiles and documents. Phone conversation with Grofman about census block population being wrongly assigned reviewing court files, particularly NAACP submission to identify possible improvements
6-				
Nov	2p	6p	4	Correcting data in mapitude
8-				
Nov	12p	530	5.5	Called Grofman to discuss progress, called Maptitude to get technical support on incorrect data
9-				
Nov	1130a	6p		Import submitted plans to summarize and compare

	1045p	1130p	0.75	Work on continuing to import plans for summary.
10- Nov	11a 330p	12 630	1 3	Enacted Plan import ibid
11- Nov	11a 9p	3p 12	3	Summary Anaysis of enacted plan Continuing analysis of plans
12- Nov	11a 4p 10p 10:15a 230p 1030p	230 630p 1115p 1230p 7p 1230a	3.5 2.5 1.25 2.25 4.5 2	Match district numbers in NAACP plan to enacted plan Create plan comparisons using corrected block file Created plan comparisons in a visually appealing way for ease of use. Uploading data into files for visible comparisons Write Code for automated plan visualizations Political Data into spreadsheets
14- Nov	10a 230p 7p	1230p 5p 1030p	2.5 2.5 3.5	Verify data sources as accurate across plans Create R file for graphics Create Github summaries of plans
15- Nov	1030a 2p 10a 1p 3p	1230p 930 12 2p 530	2 7.5 2 1 2.5	Map generation and plan updates Meet with Grofman to discuss progress and additional data needs County Split Reports for all plans ibid ibid
18- Nov	3p	10p	7	Split reports for Plaintiffs two plans and JC1
19- Nov	1p	6p	5	Finished split reports and upload data
20- Nov	930a 1230p 3p 10p	1130a 2p 4:15p 1215a	2 1.5 1.25 2.25	Work on linking files for navigation and comparison Phone call with Grofman clarifying county splits Phone call with Grofman Continue to update web so that information flows
21- Nov	11a 4p	115p 6p	2.25 2	Phone with Grofman looking at compactness measures On phone with Grofman instructed how to rework Richmond and Norfork, JC1preB
22- Nov	10a 5p 1a	1145a 7p 2a	1.75 2 1	Map Richmond with river and incumbents Create file for total districts in each county Continue above task.
23- Nov	1045a 3p	1 4:30p	2.25 1.5	Talk with Grofman, found fracking in some plans, talked about not changing 21 since it's not adjacent continued with instruction from previous conversation with Grofman

	8p	1030p	2.5	On phone with Grofman discussing Smith plans
24- Nov	10a	11a	1	Responded to BG's emails from the previous night.
	130p	330p	2	Work on getting Grofman cleaned up data on JC2
	9p	11p	2	Create Plan JC2_B3
25- Nov	10a	130p	3.5	Talk with Grofman about Richmond and how to minimize impact of redistricting on adjacent districts
	430p	615p	1.75	JC2_B6
	1030p	1230a	2	Complete JC2_B6 and upload data
26- Nov	1030a	1215p	1.75	JC2_B4
	145p		3.75	JC2_B3iii
27- Nov	1115a	415p	5	Work on county split reports, talk to Grofman about incumbent protection, JCB3iv
	5p	9p	4	More on splits and organizing data
	1030p	12a	1.5	Final touches on data for Grofman's talk with the court
28- Nov	8a	830a	0.5	Phone with Grofman before call with court
	1020a	1040a	0.5	Phone with Grofman after call with court
	230p	630p	4	Prepared Petersburg and Peninsula module plans
	1045p		1.25	On phone with Grofman about how to make modules compatible, JSPetersburg1 modularized
29- Nov	11a	1p	2	Upload Peninsula modules
	2p	945p	7.75	Create Norfolk modules
30- Nov	1030a		1	2.5 Work on visualizations
	1030p	1115p	0.75	Create Richmond1i
2- Dec	930p	145a	4.25	Create Spreadsheets for comparisons of near final illustrative plans
3- Dec	10a	1130p	13.5	Create incumbents 2018 shapefile, Richmond Module, Petersburg Module, Crunch time tasks
4- Dec	1030a	230p	4	Final Preparation of Maps and adjusting boundaries to accomodate 2018 incumbents
	315p	5p	1.75	ibid
	545p	2a	8.25	ibid
5- Dec	1230p	115p	0.75	ibid
	2p	1215a	10.25	ibid
9- Dec	900p	1145p	2.75	Prepare technical fixes in the shapefiles

10-					
Dec	2p	345	1.75	Review Special Master report for corrections	
13-					
Dec	230p	530	3	Update data with corrections	
14-					
Dec	115a	2a	0.75	Work on creating comparisons	
15-					
Dec	130	530	4	Special master report updates with data attachments, start reviewing briefs to look for data questions after phone conversation with Grofman	
16-					
Dec	1130p	130a	2	Reviewed Defendant-Intervenor's brief	
17-					
Dec	1015a	115p	3	Phone Call with Grofman	
	230p	3p	0.5	Review Plaintiffs and NAACP briefs	
18-					
Dec	1215p	430p	4.25	Plan Population change	
	1045p	1230a	1.75	Detailed District Differences Richmond1A	
19-					
Dec	1215p	1	0.75	ibid	
	2p	11p	9	Work on SM21 and 26, talk with Grofman, compare BVAP gaps as per Princeton	
20-					
Dec	1146p	3p	3.25	ibid	
	5p	6p	1	ibid	
21-					
Dec	2p	4p		Corrected data for SM21 and SM26 for comparision purposes.	
	4:15p	5	0.75	ibid	
	10p	1215a	2.25	Final touches on comparisons of the 21 and 26 changed district plans	
22-					
Dec	8a	9a	1	ibid	
	1030a	1130a	1	ibid	
	230p	3p	0.5	ibid	
	6p	715p	1.25	Extract population percentages retained/removed from districts	
23-					
Dec	145p	445p	3	Filled in Addendum 2 with data and corrections and extensions	
	1115p	115a	2	Talk on phone with Grofman, make sure party preferred plans match text	
24-					
Dec	1045a	1230p	1.75	Update github data so Grofman has access to data for his report	
26-					
Dec	630p	230a	6	Respond to BG's data questions	
27-					
Dec	12p	645p	6.75	Work on NAACP plan clarifications	
	7p	145a	6.75	final data issues on SM Addendum 2	
	8p	12a	4	ibid	

4-				
Jan	9a 1130a	10a 1245p	1 1.25	Revisions on Addendum 3 ibid
5-				
Jan	1115a 430p	12p 615p	0.75 1.75	Review new briefs from plaintiffs and naacp snd make list of objections review new brief from DI and work on trying to incorporate critiques of illustrative maps
	7p	10p	3	Create Richmond modules to check if incorporating naacp suggs are doable
6-				
Jan	330p 5p 1030p	430p 6p 12:30a	1 1 2	Answering Grofmans questions re DI Brief data assertions ibid Sent Grofman comments on the DI re data issues
8-				
Jan	1015a 145p	1115a 315	1 1.5	additional discussion of DI objections to SM report Create Richmond module with NAACP fixes
10-				
Jan	430	530	1	Talked with Grofman about next steps per the court case and got direction about new materials needed
	6p	9	3	Create new visuals for court ordered publication quality SM report
11-				
Jan	1p 7:30p	4p 930p	3 2	Continue work on publication level maps Worked on final report
13-				
Jan	915p	1130p	2.25	Uploaded maps for Grofman's approval
14-				
Jan	6p	1115p	5.25	Talked on Phone with Grofman and spend time creating module maps for the enacted and DI7002 and NAACP plans for comparisons
15-				
Jan	11a 7p	4p 10p	5 3	Investigate neighborhood splits in 94 Matched data from new court order to our data.
16-				
Jan	10a 930p	6p 3a	5.5	Coordinating BVAP with legislative staff to identify apparent errors in NAACP data submission Conversation with Grofman, then generating new data tables for the Second Special Master report
17-				
Jan	9a	12p	3	Start by talking with Grofman about latest draft, then continue to add data to document
23-				
Jan	630a	930a	3	Began by discussing court order 353 and created plan for technical corrections.
24-				
Jan	12p	2p	2	Grofman phone call about updated VTDs and creating list of VTD splits and differences between 2010 and 2014

330p	5p	1.5	ibid	
25-				
Jan 4-	10a	1215p	2.25	Call to Grofman on VTDs
Feb	5pm	6p	1	Court ordered corrections
	945p	1015p	0.5	Phone call with Grofman
		Total Hours	417.75	
		BILL FOR		
		TIME	\$31,331.25	

out of pocket expense for FEDEX of \$47.70

TOTAL **\$31,378.95**

FED-EX Receipt (paid \$47.40)



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Program-1 Chaitin

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